



PATENT
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Atty. Docket No. 10517/76

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS : Katsuhisa TANAKA

#10/JLLE
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SERIAL NO. : 09/758,241

FILED : January 12, 2001

FOR : MANUFACTURING APPARATUS AND
MANUFACTURING METHOD OF SOLID POLYMER FILM
WITH CATALYST DEPOSITED THEREON

GROUP ART UNIT : 1734

EXAMINER : J. LORENZO

ASSISTANT COMMISSIONER FOR PATENTS
Washington, D.C. 20231

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RESPONSE UNDER 37 C.F.R. § 1.111

SIR:

In response to the Office Action mailed March 29, 2002, the Applicant respectfully submits the following remarks.

REMARKS

Claims 1-10 are currently pending in the present application. Claims 1-2 and 4-6 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 2,485,725 to Francis (“Francis ‘725”). Claim 3 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Francis ‘725. Claims 7-9 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Francis ‘725 in view of Japanese publication JP 10-064574 (“Kazuhiko”), while claim 9 stands rejected under 35 U.S.C. § 103(a) as unpatentable over these references in further view of an article by Temin (in Handbook of Adhesives) entitled *Pressure-Sensitive Adhesives for Tapes and Labels* (“Temin article”). Finally, claim 8 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Francis ‘725, Kazuhiko and the Temin article in further view of U.S. Patent No. 2,556,078 to Francis (“Francis ‘078”).

The Applicant has carefully reviewed the March 29, 2002 Office Action, and respectfully submits the following remarks in response thereto. For the reasons set forth below, the Applicant believes claims 1-10 to be patentable over the cited references.

Accordingly, the Applicant respectfully requests withdrawal of the pending rejections and allowance of claims 1-10.

1. Claims 1-2 and 4-6 Are Not Anticipated By Francis '725.

The Applicant respectfully traverses the rejection of claims 1-2 and 4-6 under § 102(b) as anticipated by Francis '725 on the grounds that this reference does not disclose all the features of independent claim 1.

Claim 1 recites, *inter alia*, an apparatus for manufacturing a solid polymer film with a catalyst deposited thereon, including “a heater that preheats the solid polymer film.” As described in the specification, in the first embodiment “[p]reheating is conducted by transferring the solid polymer film 10 at a predetermined angle with respect to heating pressure roller 30B. That is, the solid polymer film 10 is preheated by being contacted with the lower roller 30B *prior to being pressed* by the pair of heat pressure rollers 30A and 30B.” Application at 5:14-17. The inventor thus has described ‘preheating’ as something that occurs *prior* to the film’s pressing to bond the catalyst material to the film.

Francis '725 is cited as disclosing “[a] heater 14,15 capable of preheating a web 12.” March 29, 2002 Office Action at 2. Review of this reference reveals, however, that there is no pre-heating as in the present invention in Francis '725. In Francis '725, backing sheets 10 and fabric web 12 are already assembled prior to arriving at heated drum 14 (in fact, these layers are already assembled before they reach roller 16, which guides the assembly and pressure-applying belt 15 onto heated drum 14). As a result, there is no pre-heating of either the backing sheets 10 or the fabric web 12 prior to their pressing and heating between heated drum 14 and pressure-applying belt 15. The Applicant therefore respectfully submits that Francis '725 does not disclose (or suggest) preheating a solid polymer film prior to heating and pressing to transfer a catalyst to the film, and thus that Francis '725 does not disclose all the features of claim 1 or its dependent claims 2 and 4-6. Reconsideration and withdrawal of the pending § 102(b) rejection of claims 1-2 and 4-6 is therefore requested.

2. Claims 3 and 7-10 Are Patentable Under § 103(a) Over The Cited References.

The Applicant respectfully traverses the rejections under § 103(a) of claim 3 as unpatentable over Francis '725 in view of Temin, claims 7 and 10 as unpatentable over Francis '725 in view of Kazuhiko, claim 9 as unpatentable over Francis '725 in view of

Kazuhiko and Temin, and finally claim 8 as unpatentable over Francis '725, Kazuhiko and Temin in further view of Francis '078, on the grounds that none of the additional cited references cures the defects of Francis '725, and therefore no combination of the foregoing references teaches or suggests all the features of independent claims 1 and 7 and their respective dependent claims 3 and 8-10.

Claim 3: As noted above, Francis '725 does not teach or suggest the preheating of the solid polymer film as recited in the independent claim 1. This observation equally applies to independent claim 7, which also recites preheating of the solid polymer film.

As to the rejection of claim 3, Temin is cited by the Examiner as teaching modification of Francis '725's backing sheets stripping angle. There is literally nothing mentioned or suggested in Temin regarding the joining, pressing and heating, or pre-heating of an input film such as the solid polymer film of the present invention. The combination of Francis '725 and Temin therefore does not teach or suggest the preheating of the solid polymer film in claim 1, from which claim 3 depends.

Claims 7 and 10: As to claims 7 and 10, the Examiner cites Kazuhiko as teaching a polymer film and a catalyst which one of ordinary skill allegedly would have been motivated to combine with Francis '725. Like Temin, Kazuhiko also fails to teach or suggest preheating of the solid polymer film in the manner of the present invention. As shown in Kazuhiko Fig. 3, there is no provision or suggestion of solid polymer film pre-heating, as the Kazuhiko film 10A enters through the center of the rollers 12, *i.e.*, from a direction in which no preheating as taught in the present invention can be performed before pressing begins. Nor does Kazuhiko suggest manufacture of a catalyst-faced film using solid polymer preheating, as there is neither discussion of preheating the catalyst films 9A and 9B (being applied to the opposing outer surfaces of the center polymer film), let alone preheating by control of the catalyst films' angle of approach to rollers 12. Moreover, nothing teaches or suggests the catalyst films and the polymer film could or should be switched (*i.e.*, catalyst in the center, polymer films applied from rollers 12), as the product of such an apparatus would be useless -- a catalyst encapsulated by impenetrable polymer films. The combination of Francis '725 and Kazuhiko therefore does not teach or suggest the preheating of the solid polymer film as recited in claim 7 and its dependent claim 10.

Claim 9: Claim 9 stands rejected over Francis 725 in view of Kazuhiko and Temin. For the reasons set forth above, the combination of these references does not teach or suggest

the preheating of the solid polymer film of claim 7, from which claim 9 depends. These references therefore do not teach or suggest the invention recited in dependent claim 9.

Claim 8: Finally, claim 8 stands rejected over Francis '725 in view of Kazuhiko, Temin and Francis '078. This latter reference is cited only for its alleged teaching of cooling of the catalyst transfer sheet of the present invention prior to its contacting the solid polymer film. Review of the Francis '078 figures and specification again reveals no teaching or suggestion of solid polymer film preheating as in the present invention, and therefore this final reference also does not cure the deficiencies of Francis '725.

In view of the foregoing, the Applicant respectfully submits that the present invention is not taught or suggested under § 103(a) by any combination of Francis '725, Kazuhiko, Temin and/or Francis '078. Accordingly, the Applicant respectfully requests the pending § 103(a) rejections of claims 3 and 7-10 be reconsidered and withdrawn.

Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that claims 1-10 are allowable. The Applicant therefore earnestly solicits an early and favorable action on the merits and issuance of a Notice of Allowance for these claims.

The Examiner is invited to contact the undersigned attorney at (202) 220-4232 to discuss any matter concerning this application.

The Office is authorized to charge any underpayment or credit any overpayment to Kenyon & Kenyon Deposit Account No. 11-0600.

Respectfully submitted,
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